METHOD AND APPARATUS FOR MAKING A SANDWICH

TECHNICAL FIELD

[0001] The present invention relates to methods of making a sandwich. In one aspect, the invention relates to pre-assembly of sandwich components and simultaneous preparation of different parts of the same sandwich. In one aspect, the invention relates to one or more of the following: pre-assembly of meat and cheese; simultaneous toasting of a bread component and heating a pre-assembled meat and/or cheese filling; and assembly of sandwich garnishes and condiments on a sandwich assembly tool. In another aspect, the present invention relates to a sandwich assembly tool useful in the foregoing methods for preparation of a sandwich, including, for example, a made-to-order sandwich.

BACKGROUND OF THE INVENTION

[0002] Hot sandwiches that are made to order and served quickly are desirable. Sandwiches with a toasted roll or bun, heated meat and/or cheese filling and cold garnish would be especially desirable if such sandwiches could be made and served quickly. One reason is that the toasting and heating creates preferred textures such as toasted bread and melted cheese. The heating also releases flavors in a way that does not occur in a cold sandwich. Finally, it would be desirable to provide to customers such a made-to-order sandwich, including a hot sandwich, neatly, efficiently and consistently prepared with the convenience and speed of quick service food.

[0003] It is advantageous for sandwiches to be served when freshly made. Otherwise, when consumed, the sandwich may not have the sensory appeal of being "fresh" For example, depending on the type of sandwich, portions may become undesirably cool, the sandwich garnish and condiments too warm, or the bread soggy after absorbing moisture from the sandwich filling and/or garnish and condiments. Thus, a need exists to quickly make sandwiches, on order demand, to maintain desired sandwich component temperatures and textures. In addition, a need exists to assemble different parts of the sandwich simultaneously or essentially simultaneously to make and serve sandwiches quickly especially if significant cooking or heating times are necessary for the bread or for the filling.

[0004] However, the demand for such sandwiches peaks at lunch and dinner times and the demand can be relatively slow between these peak periods causing labor scheduling problems or causing the restaurant to be overstaffed or understaffed during the day. Consequently, a need exists to minimize the labor required during peak periods. A consistent sandwich preparation system, method and device is needed that maximizes achieving desirable sensory perceptions when sandwich garnishes and condiments such as, for example, lettuce, mayonnaise and tomato are cool, but other portions of the sandwich are hot, such as bread and/or meat and cheese.

[0005] It is also advantageous to provide consistent sandwich quality and appearance, especially when they are purchased from a quick service restaurant. This consistency is important to achieve regardless of the person that makes the sandwich.

SUMMARY OF THE INVENTION

[0006] In accordance with the present invention, novel methods of making a sandwich and novel sandwich assembly tools are provided. While the invention is suited for making practically any type of sandwich, the invention is particularly suited for making sandwiches in a commercial environment.

[0007] As used herein, the terms "bread component" and "bread" are intended to have a very broad meaning and can be leavened or unleavened. "Bread component" and "bread" is intended to have a very broad meaning and includes, but is not limited to, for example, rolls, buns, sliced bread, croissants, bagels, pita bread, taco shells, and tortillas. Typically, a sandwich that has a bread component for its exterior or a portion thereof includes, but is not limited to, for example, a submarine or "sub" or "hero" sandwich, a hamburger or cheeseburger sandwich, a reuben sandwich, a hot dog sandwich, a wrap sandwich, and a burrito sandwich and can be eaten by hand and without any utensils. "Bread component" can refer to a bread product having several separate pieces like a hamburger bun or to one of those separate pieces. The terms "sandwich garnish material, ""sandwich garnish" or "garnish" are intended to have a very broad meaning and may be any suitable garnish for a sandwich. Thus, "sandwich garnish material,""sandwich garnish" and "garnish" include, but are not limited to, for example, lettuce, onions, tomatoes, pickles, chili, coleslaw, giardinera, peppers, spinach, radishes, olives, egg, cooked bacon, and cheese. For purposes of this patent, a garnish which contains a mixture of garnish materials can be considered to be a single garnish material and may be premixed. Examples include coleslaw, chili, and giardinera.

[0008] "Sandwich condiment" is intended to have a very broad meaning and includes any material used as a sandwich condiment. The "sandwich condiment" or "condiment" includes, but is not limited to, for example, ketchup, mustard, mayonnaise, sauces, relish, oils, salt, pepper, barbecue sauce, steak sauce, hot sauce, dressings including salad dressings, yogurt, butter, margarine, and liquid or semi-liquid cheese. The sandwich fillings include, but are not limited to, cold cuts, steak, hamburger patties, chicken patties, sausage, hot dogs, meatballs in sauce, cured meats, pork, veal, turkey, cheese, eggs, fish, grilled vegetables, and vegetarian fillings not limited to imitations of meat, dairy or fish products. Often the sandwich filling is the source of the name of the sandwich, for example, ham sandwich, Italian sausage sandwich, beef burrito. Often the sandwich filling is the main source of protein in the sandwich.

[0009] In accordance with one aspect of the invention, a sandwich assembly tool is provided. The tool can be used for the production of sandwiches, whether any or all components are heated, chilled or at ambient temperature, as desired. In one embodiment, the assembly tool is composed of a member for holding sandwich garnish material to be applied to a bread component, the member comprising at least one cavity. In one embodiment, the assembly tool may include one, two or more cavities, depending on the type of sandwich to be made. The at least one cavity is configured to contain sandwich garnish material therein and has a desired volume to contain a desired quantity of garnish placed therein. The garnish contained by the tool is considered in contact with the tool regardless of whether it is in